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PATTERNS OF THERAPY, HEALTH CARE UTILIZATION, AND HEALTH CARE COSTS IN PATIENTS WITH PULMONARY ARTERIAL HYPERTENSION (PAH) INITIATING THERAPY WITH SILDENAFIL: FINDINGS FROM RETROSPECTIVE ANALYSES OF ADMINISTRATIVE HEALTH CARE CLAIMS DATA

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OBJECTIVES: To examine patterns of therapy, health care utilization, and health care costs among PAH patients initiating therapy with sildenafil in a real-world setting. **METHODS:** Patients aged ≥18 years with evidence of PAH (*ICD-9-CM* diagnosis codes 416.0, 416.8) and ≥1 claims for sildenafil between June 1, 2005, and September 30, 2008 were identified from a large administrative health care claims database. Patients with <6 months of pretreatment data were excluded. Patients were followed from index date (first-noted sildenafil claim) until health plan disenrollment or end of study (follow-up). Patterns of therapy with sildenafil were examined, including numbers of prescriptions and associated therapy-days and compliance; the latter was measured using medication possession ratio (MPR, ratio of total therapy-days to total days of follow-up). For the subgroup of patients with ≥6 months of follow-up data, health care utilization and costs were compared between the 6-month period preceding and following the index date. **RESULTS:** Of 855 PAH patients identified who began therapy with sildenafil and met study inclusion criteria (mean age, 53 years; 69% women), 32% had comorbid lung conditions and 17% connective tissue disorders. Over a mean duration of follow-up of 423 days (median, 357 days), patients averaged 6 prescriptions for sildenafil spanning 209 therapy-days (mean MPR = 0.78). Health care utilization was largely unchanged between the 6-month preindex and postindex periods. Mean costs of outpatient care decreased by $501 ($8321 vs. $7820 during preindex); mean total health care costs increased by $4137 (95% CI, $38,815–$42,952), primarily due to increased costs of PAH-related pharmacotherapy (including sildenafil) ($P < 0.01$ for all comparisons). **CONCLUSIONS:** PAH patients initiating sildenafil therapy are relatively compliant with treatment. Although health care utilization is largely unchanged following initiation of sildenafil therapy, total health care costs increase, primarily due to costs of PAH-related pharmacotherapy. Further research is needed to better understand the real-world impact of sildenafil on patient health outcomes.

PCV55

HEALTH CARE UTILIZATION AFTER PLATELET AGGREGATION INHIBITORS

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OBJECTIVES: To analyze the annual health care utilization by patients dispensed platelet aggregation inhibitors excluding heparin. **METHODS:** This was a retrospective longitudinal descriptive database study of the utilization of health care of patients from the South-West region of Sweden (1.5 million inhabitants). All patients who were dispensed platelet aggregation inhibitors, excluding heparin (N05AC) during 2007 and who had a cardiovascular principal diagnosis (chapter 9, ICD-10) were included in the study. Only costs related to cardiovascular care (i.e. visits with a cardiovascular diagnosis) were included. **RESULTS:** a total of 46,742 patients had at least one dispensed platelet aggregation inhibitor and at least one cardiovascular related health care visit during 2007 in the South-West region of Sweden. a total of 15,779 had at least one in-patient stay, 18,211 had at least one out-patient visit, and 28,432 had at least one primary care visit. The total costs of in- and out-patient care, primary care, and of platelet aggregation inhibitors, excluding heparin was 1.5 billion SEK. The greatest cost contributor was in-patient care, a total of 1.2 billion SEK, 74,501 SEK per patient in in-patient care. The total cost for out-patient care was 98 million SEK, 5371 SEK per patient. The total cost for primary care was 92 million SEK, 3223 SEK per patient. The total drug cost was 43 million SEK, 912 SEK per patient. **CONCLUSIONS:** For those patients who had at least one health care visit and who were dispensed platelet aggregation inhibitors the drug cost amounted to less than 3% of the total annual cost. In-patient care represented as much as 80% of the total annual costs.

PCV56

RENAL MORBIDITY, MORTALITY, AND COSTS IN INDIVIDUALS UNDERGOING INVASIVE CARDIAC CATHETERIZATION PROCEDURES WITH LOW-OSMOLAR CONTRAST MEDIA: A LARGE RETROSPECTIVE DATABASE ANALYSIS

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OBJECTIVES: To investigate in-hospital hemodialysis (HD), length of stay (LOS), mortality, and costs following use of low-osmolar contrast media (LOCM) in patients undergoing invasive cardiac catheterization procedures. **METHODS:** This retrospective analysis used the Premier Perspective™ database, which contains patient-level data. In-patient adults without prior HD who underwent invasive cardiac catheterization procedures with LOCM during 2007–2008 were studied (iohexol: n = 36,118, iopamidol: n = 36,089, ioversol: n = 135,619). Propensity score weighted and multivariate logistic regression analyses were used. **RESULTS:** In-hospital HD rates were low after exposure to any of the 3 LOCM (0.9% iohexol, 1.0% iopamidol, 1.0% ioversol). Risk of HD did not differ between iopamidol and iohexol, but ioversol demonstrated increased risk of HD compared to iohexol (adjusted Odds Ratio [OR] 1.17, 95% CI 1.02–1.35) and iopamidol (adjusted OR 1.17, 95% CI 1.02–1.34). For in-hospital mortality (2.1% iohexol, 2.3% iopamidol, 1.9% ioversol), no between-group differences were statistically significant. Similarly, all-cause 30-day readmission rates (10.8% iohexol, 10.4% iopamidol, 10.6% ioversol) did not differ significantly between the groups. Contrast-induced acute kidney injury-related 30-day readmission rates were 0.2% in all 3 groups. There was no significant difference in the mean adjusted LOS between the groups (6.2–6.3 days). Iohexol was associated with a significantly lower ($P < 0.001$) mean adjusted initial hospitalization cost ($21,591) compared with either iopamidol ($23,482) or ioversol ($23,484) and with a significantly lower ($P < 0.001$) mean adjusted initial hospitalization cost post-procedure ($10,512) compared with either iopamidol ($11,393) or ioversol ($11,187). **CONCLUSIONS:** In this large cohort of hospitalized patients, in-hospital HD rates were low after invasive cardiac catheterization procedures with LOCM. The risk of HD was comparable with iohexol and iopamidol, while ioversol was associated with a significantly higher risk. While in-hospital mortality rates, LOS, and all-cause 30-day readmission rates did not differ significantly between the 3 LOCM, iohexol was associated with significantly lower cost.

PCV57

COST ANALYSIS OF THE MEDICINE TREATMENT OF SOUTH AFRICAN PATIENTS WITH METABOLIC SYNDROME

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OBJECTIVES: In the absence of data on the economic impact of the metabolic syndrome amongst South Africans, this study aims to investigate the direct cost of treatment associated with the syndrome using data from a South African Pharmacy Benefit Management company (PBM). **METHODS:** A non-experimental, retrospective quantitative drug utilization review was performed using prescription claims data. Data for a 4-year period (January 1, 2005 to December 31, 2008) were analyzed. The direct costs of medicine treatment were computed by the addition of the medical scheme contribution and the patient levy. All costs were respectively expressed in 2005, 2006, 2007 and 2008 $U.S. **RESULTS:** Prescription claims data for a total of 10,567 patients in 2005; 12,123 in 2006; 12,769 in 2007 and 13,201 in 2008 with a diagnosis of metabolic syndrome were included in the study. The total direct cost of medicine treatment for these patients accounted for $7,921,831.10 in 2005, compared to $9,290,773.29 in 2006, $9,780,931.85 in 2007 and $8,515,349.53 in 2008. These costs represented 2.76% (N = $287,538,709.70) of all claims during 2005, compared to 3.18% (N = $292,314,629.60) of claims in 2006, 3.58% (N = $273,086,935.30) in 2007, and 3.87% (N = $220,144,319.80) in 2008. Private insurers contributed 90.91% (N = $7,921,831.10) towards the treatment of patients with metabolic syndrome in 2005, compared to 89.92% (N = $9,290,773.29) during 2006, 89.50% (N = $9,780,931.85) in 2007 and 87.17% (N = $8,515,349.53) in 2008. Patients paid on average $68.15 ± 106.18 (median $17.59) out-of-pocket for levies for 2005, compared to $77.21 ± 110.54 (median $35.30) during 2006, $80.42 ± 98.43 (median $49.15) in 2007 and $82.76 ± 96.64 (median $52.66) in 2008. **CONCLUSIONS:** Results show that the costs associated with the metabolic syndrome contributes significantly towards the annual expenditure of the South African PBM. Private insurers carry most of this burden, although out-of-pocket expenses for patients show an increasing trend.

PCV58

SUBSTITUTION INFLUENCE FROM MARK DRUGS TO GENERICS IN THE ARTERIAL HYPERTENSION THERAPEUTIC COMPLIANCE AND THE DYSLIPEMIA IN A POPULATION SETTING

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OBJECTIVES: To determine the therapeutical compliance in subjects with amlodipine and simvastatin substitution from mark to generic. Secondary objective: to know the professional and patient opinion about its use. **METHODS:** Patient and methods: Before-after design with control group, realized revision of the medical records, in six centres of primary care. Participants: Patients ≥ 40 years initiating treatment of mark drug (initial period) and after that had a substitution by generic (final period), between January 2003 and June 2009. Study groups: arterial hypertension (amlodopine) and Dislipemia (simvastatin). Main measures: Co-morbidity, compliance, treatment-time, biochemistry objectives and professional-patients opinion (interviews). Continuation: Beginning from the generic drug substitution date, each patient was (Minimum) one year before with a mark drug and a year after with and generic (minim continuation/patient: 24 months). **RESULTS:** A total of 1252 patients. Groups: 49.5% amlodipine; 50.5% simvastatin. Average age: 72.4 years; women: 48.9%. The ones treated with amlodipine (comparing periods); show a better compliance (65.8% vs. 61.3%; p = 0.037) and arterial pressure control (48.5% vs. 45.8%; p = 0.039) with mark drugs. With simvastatin, was 62.8% vs. 58.4%; p = 0.041 (cholesterol control: 66.5% vs. 60.6%; p = 0.032) respectively. Interviewed doctors: 73.6% prescribe generic and a 59.2% believe that both have the same efficacy. Interview patients: a 79.8% (CI: 74.3–85.3%) accepted substitution; a 55.3% (CI: 48.5–62.1%) received the appropriate information and 61.5% the different products confuse them. a 18.2% declare that abandon treatment. **CONCLUSIONS:** In patients with amlodipine/simvastatin substitution from mark to generics, it was observed less treatment compliance light, with minor consecution of control objectives. The realized interviews (professional/patients) reaffirm the results.